memory

sensors

time keeping

processor

I/O devices

power

FIG.1

Timekeeping devices

RC oscillators
Crystal oscillators
Radio time keeping signals

Memory – items stored

Software
Information about celestial objects:
Sound recordings (e.g. spoken facts about the objects)
Alphanumeric (e.g. coordinates, object names)
Images (e.g. telescopic views of the objects)

Sensors

Accelerometers   Potentiometers
Magnetometers   Cameras
Inclinometers   Electromagnetic sensors
Compasses   Sound sensors
Gyroscopes   Voltage sensors
Global Positioning Receivers
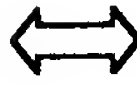
Processing devices

Microprocessor
Computer
Personal digital assistant
Lap top computer
Personal computer
Cell phone

Input and output devices

Buttons, microphones

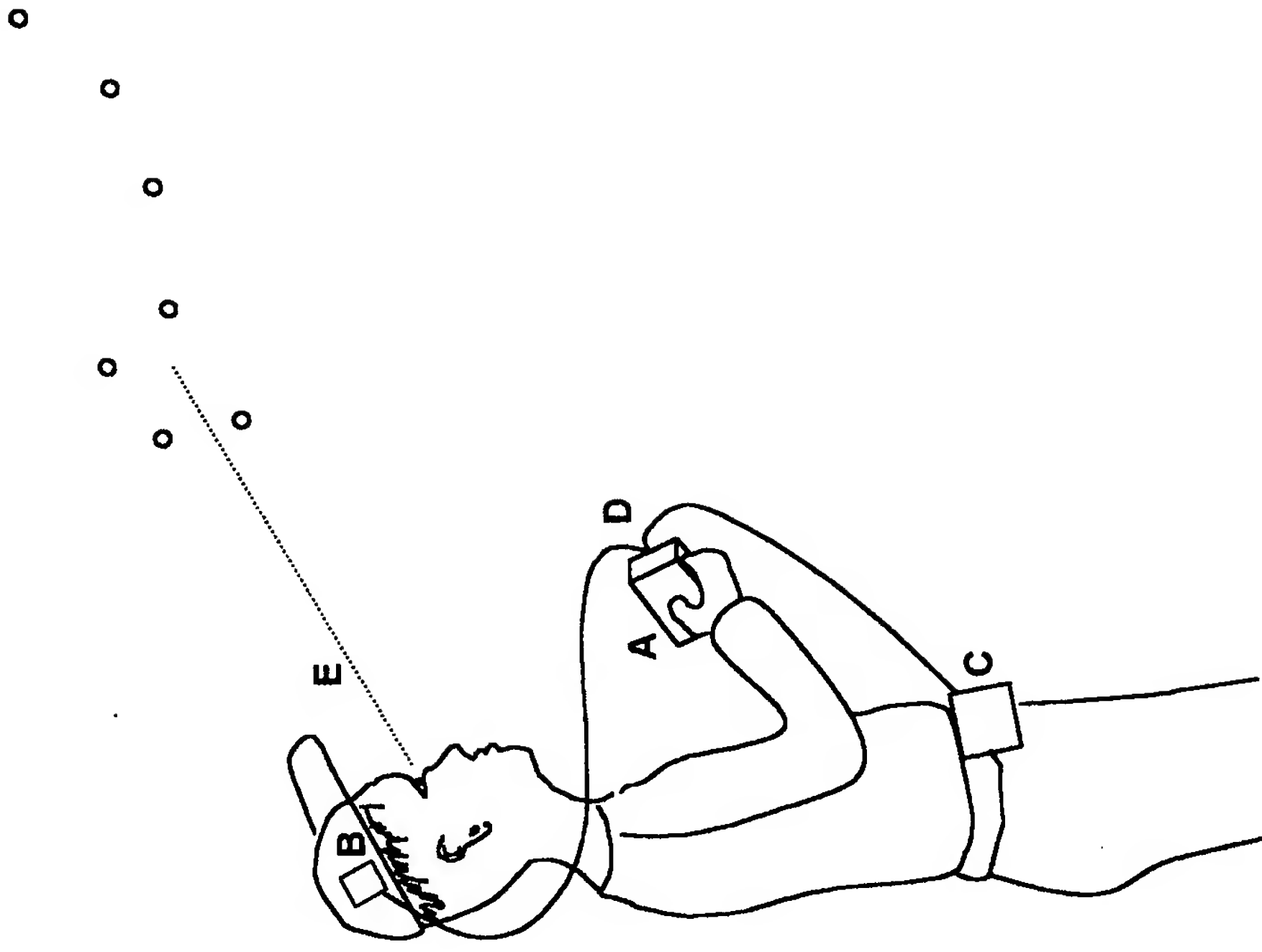Alphanumeric displays
Graphics displays
Speakers
Vibrating parts

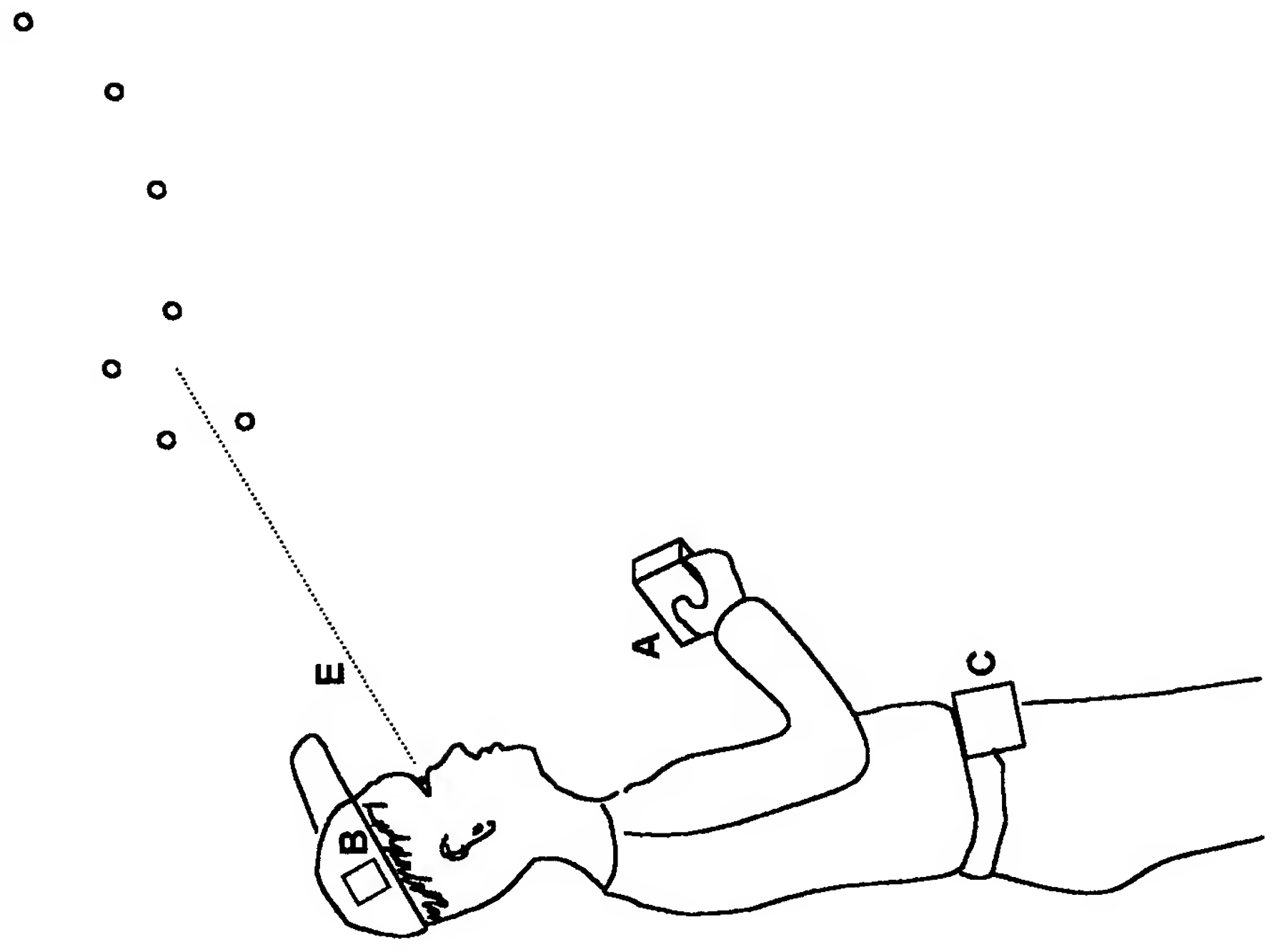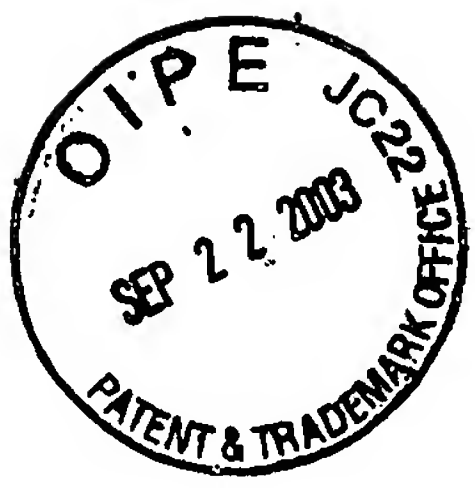Electrical power sources

Batteries
Generators
Fuel cells

FIG. 2

FIG. 3

A

B

C

D

E

FIG.4

E

B

A

C

Enter or recall or sense via gps time, date, and location
Self test and startup procedures, e.g. calibrate sensors
Select mode of use – seek object or identify objects gazed upon

Select object sought – voice or key/mouse/button input

Determine gaze from sensors

Computer angular distance from gaze to sought object

Output directions to object via sound, vibration, or display

Repeat until angular distance is small

Identify object by recorded voice and/or display

Determine gaze from sensors

Compute angular distance to objects in database

Identify nearest object by recorded voice and/or display

FIG. 5